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### NOTICE OF ALLOWANCE AND FEE(S) DUE

22850 7590 05/04/2009

EXAMINER DESAL ANAMOLI

1940 DUKE STREET

PAPER NUMBER ARTHNIT

1656 DATE MAILED: 05/04/2009

OBLON, SPIVAK, MCCLELLAND MAJER & NEUSTADT, P.C. ALEXANDRIA, VA 22314

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/561,906	12/21/2005	Miroslav Patek	281642US0XPCT	1503		

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	08/04/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED.</u> THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown

B. If the status above is to be removed, check box 5b on Part B -Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This appropriate. All further condicated unless corrected maintenance fee notification	form should be used for correspondence including d below or directed officions.	or trang the	smitting the ISSU Patent, advance or in Block 1, by (a					nould be completed where correspondence address as rate "FEE ADDRESS" for
CURRENT CORRESPONDE	NCE ADDRESS (Note: Use Bi	ock 1 for	any change of address)	N Fo pa	ote: A certificate of e(s) Transmittal. Th pers. Each addition: we its own certificat	mailin is certi al paper e of ma	g can only be used fo ficate cannot be used for r, such as an assignmental illing or transmission.	r domestic mailings of the or any other accompanying nt or formal drawing, must
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APPLICATION NO.	FILING DATE			FIRST NAMED INVENTO	R	ATTC	RNEY DOCKET NO.	CONFIRMATION NO.
10/561,906	12/21/2005			Miroslav Patek		2	81642US0XPCT	1503
TITLE OF INVENTION:								
APPLN. TYPE	SMALL ENTITY	IS	SUE FEE DUE	PUBLICATION FEE DU		E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO		\$1510	\$300	\$0		\$1810	08/04/2009
EXAMI	NER		ART UNIT	CLASS-SUBCLASS				
DESAI, AN	NAND U		1656	536-023200	_			
1. Change of correspondence address or Indication of "Fee Address" (37)  ☐ Change of correspondence address for Change of Correspondence Address form PTOSB/122) attached. ☐ "Fee Address" indication (or "Fee Address" Indication form PTOSB/128) attached. ☐ "Fee Address" indication (or "Fee Address" Indication form PTOSB/128) attached. ☐ "Gee Address" indication (or "Fee Address" Indication form Number is required.  A SSIGNEE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set form in 37 CFR 3.11. Completion of this form if NOT a substitute for filing an assignment.  (A) NAME OF ASSIGNEE								
4a. The following fee(s) a		catego		p. Payment of Fee(s): (P	ease first reapply a			shown above)
Issue Fee	11it dit		- D	A check is enclosed				
	Publication Fee (No small entity discount permitted) Advance Order - # of Copies  Payment by credit card. Form PTO-2038 is attached.  Pho Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form)							ficiency, or credit any n extra copy of this form).
5. Change in Entity State	us (from status indicated SMALL ENTITY statu			☐ b. Applicant is no le	onger claiming SMA	LLEN	TITY status. Sec 37 CF	R 1.27(g)(2).
NOTE: The Issue Fee and interest as shown by the re	Publication Fee (if req ecords of the United Sta	ired) tes Pat	will not be accepted ent and Trademark	from anyone other that Office.	the applicant; a reg	istered	attorney or agent; or th	e assignee or other party in
Authorized Signature _					Date			
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OBLON, SPIVA	K, MCCLELLAND	DESAL, ANAND U			
1940 DUKE STR		ART UNIT	PAPER NUMBER		
ALEXANDRIA, '	VA 22314	1656			

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 351 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 351 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

## Application No. Applicant(s) 10/561 906 PATEK ET AL. Notice of Allowability Examiner Art Unit ANAND II DESAL 1656 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to April 3, 2009. The allowed claim(s) is/are 12,13 and 16-29. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) X All b) ☐ Some\* c) ☐ None of the: 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. \( \overline{\text{ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). \* Certified copies not received: \_\_\_\_\_. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. X Examiner's Amendment/Comment Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit 8. T Examiner's Statement of Reasons for Allowance of Biological Material □ Other . /ANAND U DESAI/

Primary Examiner, Art Unit 1656

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### DETAILED ACTION

This office action is in response to the amendment filed on April 3, 2009. Claims 14 and

 $15\ have\ been\ cancelled.$  Claims  $30\ and\ 31\ have\ been\ with drawn\ previously.$ 

2. Claims 12, 13, and 16-29 are currently pending and are under examination.

# Withdrawal of Rejections

The rejection of claims 12, 16, 18-20, 22-27, and 29 under 35 U.S.C. 112, first paragraph,

as failing to comply with the written description requirement is withdrawn based on the

amendment to the claims.

4. The rejection of claims 12, 16-18, 20, 22, 25, and 29 under 35 U.S.C. 102(e) as being

anticipated by Nakagawa et al. (US 2002/0197605 A1; previously cited) is withdrawn based on

the amendment to the claims and the remarks stating Nakagawa et al. does encode a Gly Ile Ile

sequence that is currently excluded in the claimed invention.

### EXAMINER'S AMENDMENT

5. An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with

Dr. Thomas M. Cunningham on April 16, 2009.

Examiner's amendment to the claims:

Application/Control Number: 10/561,906

Art Unit: 1656

16. (Currently Amended) The isolated nucleic acid sequence of claim 12, which comprises (c) a polynucleotide sequence that is at least 95% homologous to SEQ ID NO: 1 or SEQ ID NO: 3.

- 17. (Currently Amended) The isolated nucleic acid sequence of claim 12, which is at least 98% homologous to SEQ ID NO: 1 or <u>SEQ ID NO:</u> 3.
- 18. (Currently Amended) The isolated nucleic acid sequence of claim 12, which encodes a polypeptide that is at least 84% homologous with the amino acid sequence of SEQ ID NO: 2 or SEQ ID NO; 4.
- 19. (Currently Amended) The isolated nucleic acid sequence of claim 12, which contains a codon encoding Asp and Phe, respectively, in the position corresponding to amino acids 21 and 22 in SEQ ID NO: 2 or SEQ ID NO: 4.

Claim 30 (Cancelled).

Claim 31 (Cancelled).

### Allowable Subject Matter

Claims 12, 13, and 16-29 are allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANAND U. DESAI whose telephone number is (571)272-0947. The examiner can normally be reached on Monday - Friday 9:00 a.m. - 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew J. Wang can be reached on (571)272-0811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1656

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

April 16, 2009 /ANAND U DESAI/ Primary Examiner, Art Unit 1656